

BOOK REVIEW

Flora of New Zealand. Volume 3, Adventive cyperaceous, petalous and spathaceous monocotyledons. A. J. Healy and E. Edgar. Published by the Government Printer, Wellington, New Zealand, 1980. xlii. 220 pp., 3 figures including 4 coloured. Price \$NZ18.50.

This volume of the new 'Flora of New Zealand' is not the awaited treatment of the Gramineae but covers, instead, adventive monocotyledons from the families whose indigenous representatives comprised volume 2.

Adventive species include those which have been introduced accidentally and grow spontaneously in New Zealand such as *Juncus bufonius* and also those that have escaped from cultivation and have persisted in the wild, such as *Trachycarpus fortunei*. Both categories contain aggressive weedy species.

In their introduction, the authors discuss the treatment of adventive species in previous floras of New Zealand. They point out that these species have traditionally been omitted from accounts of the native flora, a situation they regard as unsatisfactory: "Ultimately a Flora of New Zealand must encompass both native and adventive species in the one treatment".

The present volume of 220 pages is relatively long for its intended treatment of only 168 adventives because the authors have devoted much space to ensuring that it can be used effectively as an identification manual. To this end, the general keys at the front of the volume and the family keys to genera all include both native and adventive taxa. In the eight genera which contain both native and adventive species, *Potamogeton*, *Cordyline*, *Juncus*, *Luzula*, *Centrolepis*, *Carex*, *Cyperus* and *Scirpus*, the keys feature all species and descriptions are given of each. This makes the volume particularly useful for large difficult genera like *Carex* (22 adventive, 73 native species) and *Juncus* (31 adventive, 16 native species). In all, descriptions of 134 natives have been included.

The format of the (species) descriptions is the same as in earlier volumes but descriptions of indigenous species are shortened. The first record and first collection are given for adventive species and in the case of serious weeds information about dispersal is included. Problems of nomenclature, diagnosis and variation are dealt with where appropriate.

Notes are also given on species recorded as garden escapes, but not regarded as sufficiently well-established to merit full treatment.

A number of useful black and white figures illustrate many confusing features such as habit and inflorescence form in *Juncus*. However more figures of *Carex* species would have been welcome. The coloured illustrations of flowers of various petalous monocotyledons are of inferior quality and might well have been omitted.

The annals of taxonomic research on New Zealand Tracheophyta are continued from Volume 2 and cover the years 1969-1976; there is also a family index to the annals.

The layout of the book is excellent, the nomenclature up-to-date and the lack of typographical errors impressive. The volume strikes a sound balance between the need for a field manual for identification and a reference work of use to taxonomists. I look forward to a volume on Gramineae which includes both native and introduced species.

PETER LUMLEY